

WHAT IS CLAIMED IS:

1. An interface unit for a main unit which connects a key telephone to a telephone network in a key telephone system, comprising:

5 a communication section configured to communicate data with the key telephone by either of first and second transmission schemes;

10 a model determination section configured to determine whether the key telephone is compatible with both of the first and second transmission schemes or only the first transmission scheme; and

15 → a selection section configured to select the first transmission scheme when the key telephone is compatible with only the first transmission scheme, and select the second transmission scheme when the key telephone is compatible to both of the first and second transmission schemes.

20 2. The interface unit according to claim 1, wherein the second transmission scheme is higher in transmission rate than the first transmission scheme.

25 3. The interface unit according to claim 1, wherein the first transmission scheme includes a fixed transmission pattern for control data, and the second transmission scheme includes a transmission pattern selected from a plurality of patterns for the control data.

4. An interface unit for a main unit which

D E S C R I P T I O N

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connects a key telephone to a telephone network in a key telephone system and exchanges data with the key telephone by either of the first and second transmission schemes, the interface unit comprising:

5 a transmitter configured to transmit a mode inquiry to the key telephone by the first transmission scheme; and

10 a mode controller configured to change the transmission scheme to the second transmission scheme upon reception of a response from the key telephone.

5. The interface unit according to claim 4, wherein the second transmission scheme is higher in transmission rate than the first transmission scheme.

15 6. The interface unit according to claim 4, wherein the first transmission scheme includes a fixed transmission pattern for control data, and the second transmission scheme includes a transmission pattern selected from a plurality of patterns for the control data.

20 7. An interface unit for a main unit which connects a key telephone to a telephone network in a key telephone system and exchanges data with the key telephone by either of the first and second transmission schemes, the interface unit comprising:

25 a transmitter configured to transmit a mode inquiry to the key telephone by the first transmission scheme; and

a mode controller configured to keep the first transmission scheme unchanged when no response is received from the key telephone in a predetermined period of time.

5 8. The interface unit according to claim 7, wherein the second transmission scheme is higher in transmission rate than the first transmission scheme.

10 9. The interface unit according to claim 7, wherein the first transmission scheme includes a fixed transmission pattern for control data, and the second transmission scheme includes a transmission pattern selected from a plurality of patterns for the control data.

15 → 10. A key telephone capable of being connected to a telephone network through a main unit, comprising:

20 a receiver configured to receive a mode inquiry from the main unit by a first transmission scheme; a transmitter configured to transmit a reply to the mode inquiry to the main unit by the first transmission scheme;

25 a mode controller configured to change the transmission scheme to the second transmission scheme in accordance with an instruction from the main unit.

11. The key telephone according to claim 10, wherein the second transmission scheme is higher in transmission rate than the first transmission scheme.

12. The key telephone according to claim 10,

wherein the first transmission scheme includes a fixed transmission pattern for control data, and the second transmission scheme includes a transmission pattern selected from a plurality of patterns for the control data.

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→ 13. A key telephone system comprising:

a key telephone; and
a main unit which inquires of said key telephone
about a transmission scheme, and determines a data
10 transmission scheme between said main unit and said key
telephone on the basis of a reply.

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14. The key telephone system according to
claim 13, wherein said main unit comprises:

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a communication section configured to communicate
data with the key telephone by either of first and
second transmission schemes;

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a model determination section configured to
determine whether the key telephone is compatible with
both of the first and second transmission schemes or
only the first transmission scheme; and

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a selection section configured to select the first
transmission scheme when the key telephone is
compatible with only the first transmission scheme, and
select the second transmission scheme when the key
telephone is compatible to both of the first and second
transmission schemes.

15. The key telephone system according to

claim 14, wherein the second transmission scheme is higher in transmission rate than the first transmission scheme.

16. The key telephone system according to
5 claim 14, wherein the first transmission scheme includes a fixed transmission pattern for control data, and the second transmission scheme includes a transmission pattern selected from a plurality of patterns for the control data.

10 17. The key telephone system according to
claim 14, wherein said main unit comprises:
a transmitter configured to transmit a mode inquiry to the key telephone by the first transmission scheme; and

15 a mode controller configured to change the transmission scheme to the second transmission scheme upon reception of a response from the key telephone.

18. The key telephone system according to
claim 17, wherein the second transmission scheme is
20 higher in transmission rate than the first transmission scheme.

19. The key telephone system according to
claim 17, wherein the first transmission scheme includes a fixed transmission pattern for control data,
25 and the second transmission scheme includes a transmission pattern selected from a plurality of patterns for the control data.

20. The key telephone system according to
claim 17, wherein said main unit comprises:

a transmitter configured to transmit a mode
inquiry to the key telephone by the first transmission
scheme; and

5 a mode controller configured to keep the first
transmission scheme unchanged when no response is
received from the key telephone in a predetermined
period of time.

10 21. The key telephone system according to
claim 20, wherein the second transmission scheme is
higher in transmission rate than the first transmission
scheme.

15 22. The key telephone system according to
claim 20, wherein the first transmission scheme
includes a fixed transmission pattern for control data,
and the second transmission scheme includes a
transmission pattern selected from a plurality of
patterns for the control data.

20 23. A data transmission scheme determination
method in a key telephone system including a key
telephone and main unit, comprising:

setting the main unit and key telephone in a first
transmission scheme at an initial time;

25 causing the main unit to transmit a transmission
scheme inquiry to the key telephone;

causing the key telephone to return a response

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upon reception of the inquiry; and
causing the main unit to determine a data
transmission scheme in accordance with contents of the
reply upon reception of the reply and instruct the key
5 telephone to change the transmission scheme to the
determined data transmission scheme.

24. The method according to claim 23, wherein the
second transmission scheme is higher in transmission
rate than the first transmission scheme.

10 25. The method according to claim 23, wherein the
first transmission scheme includes a fixed transmission
pattern for control data, and the second transmission
scheme includes a transmission pattern selected from a
plurality of patterns for the control data.

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